

humans, or where workers conduct their tasks at heights. Generally, new construction would be most intensive in worker time and exposure to these hazards, followed by reconducting, then maintenance. Therefore, the Proposed Action and Alternative 3 would be expected to present more health and safety risk than Alternative 2, followed by Alternative 1. The No Action Alternative would present the least risk. Performed in compliance with all applicable regulations and guidance, activities for the Proposed Action and alternatives would pose no significant threat to the health and safety of workers or the public.

4.9 LAND USE

4.9.1 AFFECTED ENVIRONMENT

The purpose of the land use study was to identify and describe all major land uses, which could be affected by the construction and operation of the Proposed Action and alternatives. Western compiled land use information from maps and existing literature from public agencies and private organizations. Data sources for the baseline inventory included interpretations from USGS 7.5-

minute topographic quadrangle sheets and natural color aerial photographs. Baseline data were supplemented by meetings with Federal, state, and county planning, and land management agencies. Several agencies also supplied pertinent documents and maps.

4.9.1.1 RESOURCE STUDY AREA

The land use study area includes the transmission-line corridor and adjacent land uses along the corridor. The study area extended up to 0.5 mile from the ROW for the Proposed Action and alternatives. Appendix E presents aerial photographs of the area around the Proposed Action and alternatives and provides visual examples of the surrounding land.

4.9.1.2 ISSUES OF ENVIRONMENTAL CONCERN

Issues of concern identified during scoping included proximity of transmission lines to residential areas, loss of prime farmland, effects on recreation and open space areas, and potential interference with traffic patterns during construction. Table 4.9-1 presents types of land use compatible within and adjacent to the ROW.

Table 4.9-1. Compatibility of Land Use Types Within and Adjacent to the Transmission Line ROW

Land Use Type	Compatibility with Transmission Line	
	Within ROW	Adjacent to ROW
Residential/Developed Urban	Not allowed, removal of structures	Allowable, potential electrical annoyance and visual effects
Commercial/Industrial	Not allowed, removal of structures	Allowed visual effects and potential interference with access
Airport	Not allowed	Not allowed immediately adjacent to the ROW due to conflicts with aircraft flight paths
Surface Mining/Quarry	Not allowed, cessation of use	Generally allowable
Landfill	Active landfill areas not allowed/cessation of use	Generally allowable
Agricultural Land	Possible land/easement acquisition, but use would be allowed to continue. Some potential interruptions to irrigation, tilling and harvesting techniques. Removal of use at structure footings. Height restrictions for orchard crops and equipment.	Generally allowable
Cemetery	Use would be allowed to continue, possible displacement at structure footings and change in access	Allowable, visual effects
School/Church	Not allowed, removal of structures/cessation of use	Generally allowable. Potential electrical annoyance (radio/TV interference) and visual effects.

Sources: American Electric Power Co., 1995, and adapted from California Public Utilities Commission (CPUC), 1987.
ROW: right-of-way

4.9.1.3 CHARACTERIZATION

Figures 3-1 through 3-8 map the locations of line segments and MPs. Appendix E presents aerial photographs of the study area. The O'Banion Substation is south of the Sutter National Wildlife Refuge and next to the east side of the Sutter Bypass Wildlife Area. Lands crossed by Segments A, A₁, and B, are mostly prime farmland. These segments parallel other existing transmission lines. Segments A and A₁ run along the eastern levee of the Sutter Bypass drainage to MP 9.0. Segments A and A₁ cross the Feather River Wildlife Area (between MP 11.0 and 11.8). A portion of Segment A₁ (MP 17.4 to 20.2) would be realigned to avoid sensitive land uses, including two residential areas (MP 17.6) and the Pleasant Grove Cemetery (MP 18.2).

A portion of Segment B would be located along scattered residential areas containing ranchettes. The residential areas along Segment B are more built up south of Baseline Road (MP 1.5). Segment B parallels other transmission lines, especially from MP 2.8 to the Elverta Substation. Although Segments F and H and a portion of Segment G parallel transmission lines, each segment is located in a more rural area than Segment B. Land uses along Segment G include agriculture and grazing lands. A few scattered residences are located along Segment G (MP 3.0 to 4.0). Segment G (MP 0.0 to 1.7) is the only segment that does not parallel existing transmission lines or ROWs.

Segment C and the northern portion of Segment D parallel other transmission lines within existing ROWs and through the metropolitan Sacramento area. Land uses include a mix of urban residential, commercial, industrial, parks, and recreation areas. Segment C (MP 3.5 to 3.8) would run through several commercial and industrial parking lots. A community park is located at MP 7.3. There are urban residential neighborhoods from MP 4.0 to the American River Parkway (MP 8.7). Segment C passes along the American River Parkway, to the Hurley Substation. Segment D crosses the Parkway (MP 2.5). There is a bicycle path between MP 10.0 and 11.0.

Along Segment D, there is a private school adjacent to the north side of the ROW (MP 1.9). A portion of the school's soccer field and playground are located in the ROW. Mixed land use occurs near MP 1.0, including a senior residence care center and a private recreation facility along with the recreation facility's tennis courts, located in the ROW. Industrial uses include a gravel quarry and an adjacent landfill (MP 4.2 to 5.5). Approaching Hedge Substation, a network of other transmission lines feed into or pass near the substation. Between Hedge and Elk Grove substations Segment D would continue to parallel other transmission lines.

New residential areas are located along the ROW from Calvine Road to the Elk Grove Substation. A park and tennis courts are located within the ROW between Vintage Park Drive and Calvine Road (Segment D, MP10.0). An old cemetery is located west of the ROW at Segment D, MP 13.0. South of Elk Grove Boulevard Segment D, MP 12 to 14, there is a groundwater treatment plant, an asphalt plant, a concrete mix plant, and other industrial facilities. The area around Elk Grove Substation is designated for industrial development by the General Land Use Plan for the City of Elk Grove (Elk Grove, 2002). Grazing occurs in the ROW both north and south of the Elk Grove Substation.

Segments E and E₁ would run through an industrial zone, a golf course, and an area designated for future urban development (MP 0.0 to 0.8). There is a private airstrip about one mile east of the substation. Segments E and E₁ would cross the Cosumnes River and Cosumnes River Preserve near MP 3.4. The Cosumnes River Preserve is public land managed jointly by a consortium of public agencies and private entities. There is a small gas-fired power plant operated by Northern California Power Agency (NCPA) along Segments E and E₁ (MP 21.2). PG&E operates a substation at MP 23.4.

Moving south, Segments E and E₁ cross large areas of prime farmland between MP 10 and 19 with crops including alfalfa, asparagus, tomatoes, and corn. Vineyards (MP 12.5 to 16) are also dispersed along the transmission line ROW. The route would traverse three to five miles west of the communities of Galt (MP 10.1), Lodi (MP 19.0), and Stockton (MP 30.0) and then continue southwest through undeveloped portions of San Joaquin, Contra Costa, and Alameda counties.

Segments E and E₁ would cross the San Joaquin River (MP 29.1). West of Stockton, Segments E and E₁ would cross a series of sloughs (MP 30.0 to 32.0) designated by San Joaquin County as resource conservation areas. The segment would cross over the Mokelumne Aqueduct (MP 30.2) and pass approximately 0.25 mile west of the Rough and Ready Island U.S. Naval Reservation (MP 30.5). Continuing south the line would cross the Middle River (MP 37.5), also designated by San Joaquin County as a resource conservation area.

Segments E and E₁ would pass approximately 0.25 mile southeast of the Clifton Court Forebay (MP 43.7), which is owned by the State of California. The Livermore Yacht Club is located west of MP 45.0, south of the Mendota Canal. The community of Tracy is nine miles southeast of the Tracy Substation. The new planned community of Mountain House is 1.5 miles southeast of Tracy Substation.

4.9.2 ENVIRONMENTAL CONSEQUENCES

4.9.2.1 STANDARDS OF SIGNIFICANCE

Within the study area, the following types of potential land use impacts are considered significant if the Proposed Action and alternatives would:

- Be inconsistent with adopted land use plans and goals of the community or area in which they are located, including open space designations or other types of areas designated for preservation,
- Cause major conflicts in established recreational areas,
- Convert prime, unique or other farmland of statewide importance to nonagricultural uses,
- Permanently preclude planned land uses over a large area,
- Conflict with existing utility ROWs,
- Cause major traffic delays for a substantial number of motorists, or
- Cause physical damage to roads that is not repaired to a level equal to or better than what existed prior to construction.

The socioeconomics section (4.12) includes significance standards related to some of the potential land use conflicts identified in this section, including standards for potential impacts to residential areas and businesses, public services and the economic-related impacts of converting prime farmland to other uses.

4.9.2.2 ENVIRONMENTAL PROTECTION MEASURES

EPMs for land use issues from Table 3-4 include the following:

- When weather and ground conditions permit, all construction-caused deep ruts that are hazardous to farming operations and to moving equipment would be restored to preconstruction condition, as practical.
- On completion of the work, all work areas except access trails would be scarified or left in a condition that would facilitate natural revegetation, provide for proper drainage, and prevent erosion.
- During construction, movement would be limited to the access roads and within a designated area in the ROW to minimize damage to agricultural land.
- Construction operations would be conducted to prevent unnecessary destructing, scarring, or defacing of the natural surroundings to preserve the natural landscape to the extent practicable.
- No permanent discoloring agents would be applied to rocks or vegetation to indicate limits of survey.

- Damaged fences and gates would be repaired or replaced to restore them to their preconstruction condition.
- Some land uses occurring within the ROW would require temporary closure or limited access. Proper signage would be posted in these areas.

For land uses occurring within the ROW (such as the private school's playground and soccer field and the private recreation facility's tennis courts Segment D, MP 1.0 to 2.0), temporary closure and limited access to these areas would be required. Signage would be posted for the length of the temporary closure. The EPMs included in the socioeconomics section (Section 4.12.2.2) are also designed to minimize and avoid potential impacts to other land uses, including nearby residences, businesses, landowners, and motorists during construction.

4.9.2.3 IMPACTS FROM PROPOSED ACTION— NEW TRANSMISSION O'BANION SUBSTATION TO ELVERTA SUBSTATION; REALIGNMENTS; RECONDUCTING ELVERTA SUBSTATION TO TRACY SUBSTATION

No significant impacts would result from the Proposed Action. The proposed alignment of the new O'Banion–Elverta transmission line and the realignments are planned and sited to avoid the existing Pleasant Grove Cemetery and residential areas. The new line and ROW along Segment G would be within 0.25 mile of two rural residences, resulting in potential impacts that are addressed in the socioeconomics (Section 4.12) and visual resource sections (Section 4.14). This is the only segment of new line that would not be adjacent to an existing transmission line ROW. This approximate 1.5 mile portion of the Proposed Action route would not conflict with any existing or planned land uses or designations, other than prime farmland. The private school along Segment D (MP 1.9) and private recreation facility/tennis courts would experience indirect short-term construction impacts, and some recreation areas would not be usable during construction.

For Segment A₁, 6.7 acres of prime farmland would be removed from agricultural production where new structures would be placed in the ROW. Removing prime farmland permanently from agricultural use would be a long-term impact. However, farming practices would continue in the new ROW, and the socioeconomics section concluded that the potential economic impacts of removing this land from production would not be significant.

Potential additive impacts to parks, resource conservation, and recreation areas including the American River Parkway would not be significant. All of the Proposed

Action, except about 1.5 miles in Segment G, would be constructed in existing transmission ROW or parallel and adjacent to existing transmission lines. This, along with the fact the Proposed Action would be sited to minimize conflicts with existing land uses, would help avoid new impacts to incompatible and existing land uses. Incremental impacts to recreation and conservation areas would not be significant. As with agricultural uses, most existing recreation uses could continue within the new and existing ROW where the Proposed Action would be constructed. Recreation and conservation areas are not found within the portion of Segment G that would not be parallel to an existing ROW.

Construction could temporarily interfere with the use of local roadways or driveways. Heavy construction equipment may damage study area roadways or driveways. Western's EPMs would avoid and reduce the magnitude of such impacts. These practices include using detours, limiting the area and duration of traffic impacts by carefully siting staging areas and construction traffic routes, making arrangements with local business owners and residences, and repairing any damage that may occur to roadways or driveways during construction.

Reconductoring would cause minimal impacts to existing land uses during short-term maintenance, including the private school (and associated playground and soccer field) and the private recreation facility (and associated tennis courts) along Segment D (MP 1.0 to 2.0).

4.9.2.4 IMPACTS FROM ALTERNATIVE 1—RECONDUCTORING O'BANION SUBSTATION TO TRACY SUBSTATION

Alternative 1 would not result in long-term impacts to prime farmland. This alternative has the potential to cause land use impacts as described for the Proposed Action. For the same reasons as described for the Proposed Action, none of these impacts are expected to be significant.

4.9.2.5 IMPACTS FROM ALTERNATIVE 2—NEW TRANSMISSION O'BANION SUBSTATION TO ELVERTA SUBSTATION AND REALIGNMENTS

Alternative 2 would remove approximately 6.7 acres of prime farmland from agricultural use (the same as the Proposed Action). All this land would be in Segment A₁. This alternative has the potential to cause the same land use impacts described for the Proposed Action. However, for the same reasons as described for the Proposed Action north of Elverta Substation, none of these impacts are expected to be significant.

4.9.2.6 IMPACTS FROM ALTERNATIVE 3—NEW TRANSMISSION ELK GROVE SUBSTATION TO TRACY SUBSTATION

Alternative 3 would remove approximately 15.2 acres of prime farmland from agricultural use (the most of any of the action alternatives). This alternative may cause the same impacts described for the Proposed Action. However, for the same reasons as described for the Proposed Action, none of these impacts are expected to be significant.

4.9.2.7 IMPACTS FROM THE NO ACTION ALTERNATIVE

No new land use impacts would occur under the No Action Alternative. The No Action Alternative could continue to have periodic impacts on existing land uses during routine maintenance and operations activities on agricultural lands where crops are located in the ROW. These short-term impacts would not be significant. Under the No Action Alternative, and to minimize crop damage in the ROW, Western would continue to work with landowners regarding scheduling of routine maintenance and operation activities.

4.10 NOISE

4.10.1 AFFECTED ENVIRONMENT

This section describes existing conditions and noise impacts that would result from the Proposed Action and alternatives. Noise is sound that is often considered undesirable because it can interfere with speech, communication, or hearing, or is otherwise annoying. It can be intense enough to damage hearing. Noise decreases with distance from the source. The distance at which sound can be heard depends on the intensity of the sound, meteorological conditions, terrain, and background noise levels.

4.10.1.1 RESOURCE STUDY AREA

Approximately 108 miles of linear features make up the Proposed Action and alternatives study area. The study area is within the counties of Sutter, Sacramento, Placer, San Joaquin, Contra Costa, and Alameda. The study area for noise impacts covers the ROW and areas that could be impacted by noise from the ROW.

4.10.1.2 ISSUES OF ENVIRONMENTAL CONCERN

Potential noise impacts of the Proposed Action and alternatives would be from construction and operation of the line.